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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,548

08/07/2006

Katsunori Takada

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04/01/2008

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EXAMINER

AHMED, SHEEBA

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

04/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,548	TAKADA ET AL.	
	Examiner	Art Unit	
	SHEEBA AHMED	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/06; 3/07; 6/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Preliminary Amendment

1. The amendments to claim 11 have been entered in the above-identified application. New aims 12-20 have been added. **Claims 1-20 are pending.**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (US 5,747,152 A) in view of Nishikawa et al. (US 6,916,540 B2).

Oka et al. disclose a transparent functional film comprising a transparent plastic substrate film and a hard coat layer provided thereon, wherein functional ultrafine particles are present in a highly localized form, thereby enabling the functional ultrafine particles to effectively exhibit their function and, at the same time, the hard coat layer to have a good adhesion to the functional ultrafine particle layer; and also an antireflection film and processes for producing the transparent functional film and the antireflection film. Examples of the functional ultrafine particles used in the functional ultrafine particle layer include ultrafine particles which have a size of not more than 200 nm and exhibit functions such as a UV screening property, an electrical conductivity,

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an antistatic property, and an antireflection property. Examples of ultrafine particles include tin oxide, silicon oxide, and zinc oxide. Any transparent plastic film may be suitably used as the transparent plastic substrate film for the transparent functional film, and examples thereof include a triacetyl cellulose film, a diacetyl cellulose film, a cellulose acetate butyrate film, a polyether sulfone film, a polyacrylic resin film, a polyurethane resin film, a polyester film, a polycarbonate film, a polysulfone film, a polyether film, a trimethylpentane film, a polyether ketone film, and a (meth)acrylonitrile film. Among them, a triacetyl cellulose film and a uniaxial stretched polyester film are particularly favorable because they have excellent transparency and no optical anisotropy. The thickness of the transparent substrate film is, in general, preferably in the range of from about 8 to 1000 microns. The binder resin used in the hard coat layer may be an ionizing radiation curing resin so far as it is transparent. In order to impart a hard property, the thickness of the hard coat layer is not less than 0.5 microns. The hard coat layer has a hardness of not less than H as measured by a pencil hardness test specified in JIS K5400. The ionizing radiation curing resin used is preferably one having an acrylate functional group, and examples thereof include a urethane resin. In order to bring the above ionizing radiation curing resin composition to UV curing type, it is preferred to incorporate, into the ionizing radiation curing resin composition, a photopolymerization initiator.

Oka et al. do not disclose that the hard coat further contains an isocyanuric acid acrylate.

However, Nishikawa et al. disclose an antireflection laminate having a first layer formed on the outermost side and a second layer formed under the first layer. The second layer contains a needle-like antimony-containing tin oxide and may be a cured product prepared by curing an organic solvent type curable composition containing the needle-like antimony-containing tin oxide; a reaction product of a hydroxyl group-containing polyfunctional (meth)acrylate and a diisocyanate; a polyfunctional (meth)acrylate; and photoinitiator. The laminate has superior antistatic properties, antiscratching properties and transparency. Preferable examples of the hydroxyl Group-containing Polyfunctional (meth)acrylate include isocyanuric acid EO-modified di(meth)acrylate (See Abstract, Column 2, lines 5-45, Column 4, lines 61-68 and Column 5, lines 1-10).

Accordingly, it would have been obvious to one having ordinary skill in the art to add an isocyanuric acid acrylate to the hard coat taught by Oka et al. given that Nishikawa et al. teach that such a monomer provides superior antistatic properties, antiscratching properties and transparency.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEEBA AHMED whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 8am to 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sheeba Ahmed/
Primary Examiner, Art Unit 1794